

ABSTRACT OF THE DISCLOSURE

A glyoxal-guanosine-group compound is prepared either by reacting glyoxal-guanine with any one of ribose-1-phosphate and 2-deoxyribose-1-phosphate in the presence of purine nucleoside phosphorylase, or by reacting glyoxal-guanine with any one selected from the group consisting of uridine, 2'-deoxyuridine and thymidine, together with phosphate ion, in the presence of purine nucleoside phosphorylase and pyrimidine nucleoside phosphorylase. The glyoxal-guanosine-group compound is then decomposed by alkali, whereby a guanosine-group compound consisting of guanosine and 2'-deoxyguanosine is prepared.